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**Gage et al.**

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(54) **METHOD FOR DETERMINING ION  
CHANNEL ACTIVITY OF A SUBSTANCE**

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(57) **ABSTRACT**

A method for determining the ion channel activity of a  
substance comprises the steps of (i) expressing the substance  
as a heterologous protein in a host cell, and (ii) determining  
changes in permeability of the plasma membrane of the host  
cell induced by expression of the heterologous protein. A  
screening method for determining ion channel modulating  
activity of a test substance is also disclosed.

**23 Claims, 7 Drawing Sheets**